

**WHAT IS CLAIMED IS:**

- 1           1.     A coating for application onto a wellbore screen comprising:
- 2                     a chemical binder, at least one reactive material mixed with said
- 3                     chemical binder so that the reactive material is released from the
- 4                     binder when the binder and reactive material are inserted into a
- 5                     wellbore.
- 1           2.     A coating according to Claim 1 wherein the chemical binder is selected
- 2                     from one or more of the following materials: high melting point surfactants,
- 3                     high melting point waxes, high melt point organic acids, polymer blends,
- 4                     blends of high melting point surfactants and waxes, blends of surfactants
- 5                     and wax, and blends of surfactants and organic acids, blends of waxes
- 6                     and organic acids.
- 1           3.     A coating according to Claim 2 wherein the chemical binder has a melting
- 2                     point between 120 degrees Fahrenheit to 275 degrees Fahrenheit.
- 1           4.     A coating according to Claim 1 wherein the chemical binder is selected
- 2                     from one or more of the following materials: a paraffin, an ethoxylated
- 3                     dinonyphenol and nonyphenol branched nonionic surfactant, an

4 alkyphenol ethoxylate, a blend of polyethylene and copolymer waxes, a  
5 blend of surfactant and wax, a blend of surfactant and organic acids, a  
6 blend of wax and organic acid, polyglycolic acid, and glutaric acid.

1 5. A coating according to Claim 1 wherein at least one reactive material is  
2 selected from one or more of the following materials: chelants, organic  
3 acids, enzymes, free radical generators, oxidizing agents, and  
4 combinations of organic acids with ammonium bifluoride.

1 6. A coating according to Claim 1 wherein at least one reactive material is  
2 selected from the following materials: disodium salt of  
3 ethylenediaminetetraacetic acid, dipotassium salt of  
4 ethylenediaminetetraacetic acid, diammonium salt of  
5 ethylenediaminetetraacetic acid, and tetrasodium salt of  
6 ethylenediaminetetraacetic acid.

1 7. A coating according to Claim 1 wherein at least one reactive material is  
2 selected from one or more of the following materials:  
3 ethylenediaminetetraacetic acid, glutaric acid, ascorbic acid, erythorbic  
4 acid, sulfamic acid, citric acid, fumaric acid, magnesium peroxide, and  
5 calcium peroxide.

- 1 8. A coating according to Claim 1 wherein at least one reactive material is a  
2 polymeric form of glycolic acid which has a melting point between 120  
3 degrees Fahrenheit and 250 degrees Fahrenheit.
- 1 9. A coating according to Claim 1 wherein at least one reactive material is an  
2 enzyme capable of degrading xanthan gum.
- 1 10. A coating according to Claim 1 wherein at least one reactive material is an  
2 enzyme capable of degrading natural or chemically modified starches.
- 1 11. A coating according to Claim 1 wherein at least one reactive material is an  
2 enzyme capable of degrading derivatized cellulose.
- 1 12. A coating according to Claim 1 wherein at least one reactive material is an  
2 enzyme capable of degrading natural or derivatized guar gum.
- 1 13. A coating according to Claim 1 wherein at least one reactive material is  
2 selected from one or more of the following materials: sodium persulfate,  
3 ammonium persulfate, and potassium persulfate.

- 1 14. A coating according to Claim 1 wherein at least one reactive material is an  
2 organic acid with a melting point between 120 degrees Fahrenheit to 275  
3 degrees Fahrenheit in combination with ammonium bifluoride.
- 1 15. A coating according to Claim 1 wherein the binder and reactive materials  
2 consist of glutaric acid, the disodium salt of ethylenediaminetetraacetic  
3 acid, ascorbic acid and a blend of cellulase and mannanase enzymes.
- 1 16. A coating according to Claim 2 wherein at least one reactive material is a  
2 chemical capable of dissolving calcium carbonate.
- 1 17. A coating according to Claim 16 wherein at least one reactive material is  
2 selected from the following materials: chelants, organic acids, and  
3 combinations of organic acids with ammonium bifluoride.
- 1 18. A coating according to Claim 2 wherein at least one reactive material is  
2 capable of degrading polymers or starches.
- 1 19. A coating according to Claim 18 wherein said at least one reactive  
2 material is selected from the following materials: an organic acid, a  
3 combination of organic acids with ammonium bifluoride, an oxidizing

- 4 agent, materials which can cause the production of free radicals, and an
- 5 enzyme.

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